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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed 3/12/09 have been fully considered but they are not persuasive.

Page 7:

The 112 first and second paragraph rejections are withdrawn.

Page 9, paragraph beginning with "Applicant submits that":

The applicant argues that the combination of Adiwoso and Schiff would not be possible due to their differing communication protocols. The examiner is using Adiwoso to teach the general overview of the satellite network as well as the type of data that could be transmitted. Schiff, while detailed in its disclosure of how the data is transmitted, is mostly silent as to the satellite network as well as what type of data that would be transmitted. Therefore combining the references would be a valid combination as the teachings of Schiff would not destroy the general overview of the network nor the type of data transmitted over the network.

Page 10, first paragraph:

The applicant argues that Schiff only teaches a single type of station, and therefore could not be used to reject the user and provider limitations. As is noted by the applicant, Schiff teaches that the first station to transmit is designated as the "master station" (column 3, lines 18-19). In the following sentence, it is taught that a

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modification could take place that would cause another earth station to act as the master station (column 3, lines 19-22). This shows that one of the stations is not the same as the others, and therefore it would be possible to state that the master station could possibly be considered the provider station.

Page 10, paragraph beginning with "Applicant respectfully submits":

The applicant argues that the provider and the user would not have the same data rate even though they state that Schiff teaches that the master station and the other stations should have the same data rate. Clarification is needed.

The remaining arguments are considered to repeat previous arguments and therefore have been considered by the examiner.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-8, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adiwoso in view of Schiff.

Referring to claim 1, Adiwoso discloses an integrated multispot satellite communication system in a multimedia broadcasting network with a return channel (figure 1; column 3, lines 35-48), comprising:

a satellite that receives a multimedia broadcast signal from a provider and transmits said multimedia broadcast signal to a user in response to a request from said user (column 3, lines 43-48);

a network controller that receives different return channels from said user and said provider, via said satellite (column 4, lines 30-32, 36-38, and 48-53), wherein a signaling part of said multimedia broadcast signal is addressed from said provider to said network controller (column 9, lines 57-65).

Adiwoso does not disclose a system with common means of burst synchronization such that the transmission rate in a downlink direction from the satellite is a whole multiple of a clock reference of said network; wherein different uplink channels from a service provider and a user are inserted into a downlink signal in a synchronous manner, such that a period of the downlink frame is equal to a period of the uplink frame.

In an analogous art, Schiff teaches a system with common means of burst synchronization (column 7, lines 18-23) such that the transmission rate in a downlink direction from the satellite is a whole multiple of a clock reference of said network (column 4, lines 65-67; figure 5; Note: The I Frame shown in figure 5 is interpreted as being the period of the downlink transmission. With this information one can see that 3 sets of information are sent within the downlink period. As the applicant has noted the

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transfer rate is equal to the amount of data sent divided by the period ( $N_d/T_{df} = R_{td}$ ). Therefore the rate would be equal, in this case, to 3 times the frequency (where frequency is equal to  $1/T_{df}$ ); wherein different uplink channels from a service provider and a user are inserted into a downlink signal in a synchronous manner, such that a period of the downlink frame is equal to a period of the uplink frame (column 3, lines 55-58; column 3, lines 1-5; column 3, lines 19-22; Note: as Adiwoso discloses a plurality of types of earth stations, it would have been obvious for one of ordinary skill in the art to interpret the master station as the provider while the other stations are the users.).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the synchronization method taught by Schiff to the system disclosed by Adiwoso. The motivation would have been to enable multiple users to transmit upstream to the satellite on the same frequency, thereby allowing for more efficient usage of bandwidth while insuring proper synchronization (Schiff: column 3, lines 1-5).

Claim 5 is rejected on the same grounds as claim 1.

Referring to claim 2, Adiwoso does not disclose a system according to claim 1, wherein said satellite is configured to generate said network clock reference.

In an analogous art, Schiff teaches a system according to claim 1, wherein said satellite is configured to generate said network clock reference (column 5, lines 27-31).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the synchronization method taught by Schiff to the system disclosed by

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Adiwoso. The motivation would have been to enable multiple users to transmit upstream to the satellite on the same frequency (Schiff: column 3, lines 1-5).

Claim 6 is rejected on the same grounds as claim 2.

Referring to claim 3, Adiwoso does not disclose a system according to claim 2, further comprising a multiplexer.

In an analogous art, Schiff teaches a system according to claim 2, further comprising a multiplexer (figure 3).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the synchronization method taught by Schiff to the system disclosed by Adiwoso. The motivation would have been to enable multiple users to transmit upstream to the satellite on the same frequency (Schiff: column 3, lines 1-5).

Referring to claim 4, Adiwoso does not disclose a system according to claim 3, characterized in that said multiplexer inserts in the synchronous manner the different uplink channels from the service provider and the user into the downlink signal.

In an analogous art, Schiff teaches a system according to claim 3, characterized in that said multiplexer inserts in the synchronous manner the different uplink channels from the service provider and the user into the downlink signal (column 4, lines 19-25).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the synchronization method taught by Schiff to the system disclosed by

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Adiwoso. The motivation would have been to enable multiple users to transmit upstream to the satellite on the same frequency (Schiff: column 3, lines 1-5).

Claim 7 is rejected on the same grounds as claims 3 and 4.

Claim 8 is rejected on the same grounds as claim 4.

Referring to claim 17, Adiwoso discloses a system of claim 1, wherein said request from said user comprises a request for video on demand service (column 3, lines 43-48).

Claim 18 is rejected on the same grounds as claim 17.

2. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adiwoso and Schiff as applied to the claims above, and further in view of Hreha.

Referring to claim 9, Adiwoso and Schiff do not disclose a system of claim 1, wherein said system is configured to communicate in accordance with digital video broadcasting return channel system.

In an analogous art, Hreha teaches a system of claim 1, wherein said system is configured to communicate in accordance with digital video broadcasting return channel system (column 3, lines 34-42).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the DVB-RC standard taught by Hreha in the system disclosed by Adiwoso and Schiff. The motivation would have been to use a public signaling standard (column 3, lines 34-42).



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Claim 10 is rejected on the same grounds as claim 9.

3. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adiwoso and Schiff as applied to the claims above, and further in view of Setoyama.

Referring to claim 11, Adiwoso and Schiff do not disclose a system of claim 1, wherein said downlink direction transmission rate is one of 54 Mbit/s, 81 Mbit/s and 108 Mbit/s.

In an analogous art, Setoyama teaches a system of claim 1, wherein said downlink direction transmission rate is one of 54 Mbit/s (column 1, lines 39-41 and 46-51), 81 Mbit/s and 108 Mbit/s.

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the 54 Mbit/s transmission rate taught by Setoyama in the system disclosed by Adiwoso and Schiff. The motivation would have been to fit more data into the stream.

Claim 12 is rejected on the same grounds as claim 11.

Referring to claim 13, Adiwoso and Schiff do not disclose a system of claim 1, wherein a bandwidth of a transmitter onboard said satellite is a multiple of 27 MHz.

In an analogous art, Setoyama teaches a system of claim 1, wherein a bandwidth of a transmitter onboard said satellite is a multiple of 27 MHz (column 1, lines 39-41 and 46-51).

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At the time of the invention it would have been obvious for one of ordinary skill in the art to use the 27 MHz bandwidth taught by Setoyama in the system disclosed by Adiwoso and Schiff. The motivation would have been to fit more data into the stream.

Claim 14 is rejected on the same grounds as claim 13.

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adiwoso and Schiff as applied to the claims above, and further in view of Sharon.

Referring to claim 15, Adiwoso discloses a system of claim 1, further comprising: wherein said network controller performs control operations and verifies at least one of an identity and a profile of said user (column 4, lines 48-53; column 9, lines 57-65).

Adiwoso and Schiff do not disclose a system with a regenerator, positioned on said satellite, that performs multiplexing and at least one of cross-connecting and broadcasting channels to different coverage zones.

In an analogous art, Sharon teaches a system with a regenerator, positioned on said satellite, that performs multiplexing and at least one of cross-connecting and broadcasting channels to different coverage zones (column 4, lines 31-39).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the repeater for adding zone coverage taught by Sharon to the system disclosed by Adiwoso and Schiff. The motivation would have been to enable coverage of multiple zones (or areas) thereby decreasing the need to launch a satellite for each area, therefore saving money (Adiwoso: figure 2; column 6, lines 20-30).

Claim 16 is rejected on the same grounds as claim 15.

***Allowable Subject Matter***

Claims 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The added limitations found in claims 19 and 20 contain detailed specifics about the transmission rates of the uplink channels not found in the prior art. The addition of these details would result in allowable claims if the subject matter from the independent claims were added to them.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin E. Shepard whose telephone number is (571) 272-5967. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Kelley/  
Supervisory Patent Examiner, Art  
Unit 2424

JS